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10/643,291	08/19/2003	Akihiko Taniguchi	501152.20019	4056

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AKIHIKO TANIGUCHI, KAZUMA GOTO, MASAYA FUJIOKA, and SHUNICHI HIGASHIYAMA

Appeal 2008-2268
Application 10/643,291
Technology Center 1700

Decided: June 5, 2008

Before BRADLEY R. GARRIS, THOMAS A. WALTZ, and ROMULO H. DELMENDO, *Administrative Patent Judges*.

DELMENDO, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1, 3, 4, 7, 8, and 11. Claims 5, 6, 9, and 10, the only other pending claims, are not rejected. Oral arguments were heard on May 20, 2008. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Appellants state they invented "an ink for ink-jet recording which makes it possible to obtain vivid recorded matters by satisfying both of the prevention of the feathering and the prevention of the bleeding even when the recording is performed on regular paper" (Specification, hereinafter "Spec.," ¶0001).

Representative claim 1 on appeal reads as follows:

> 1. An ink for ink-jet recording comprising an anionic self-dispersing coloring agent, a surfactant having both of a cationic moiety and a nonionic moiety, and water,
>
> wherein a curve, which represents a change of surface tension of the ink with respect to a concentration of the surfactant, has one inflection point, the curve has a first local maximum point and a second local maximum point on a low concentration side and on a high concentration side of the inflection point respectively, and a concentration of the surfactant contained in the ink is higher than a concentration corresponding to the first local maximum point.

As evidence of unpatentability, the Examiner relied on the following documents:

Momose	6,695,900 B2	Feb. 24, 2004

Claims 1 and 9 of commonly assigned Application 10/387,739, now claims 1 and 4 of United States Patent 7,014,695 B2 issued to Koga on Mar. 21, 2006.

The Examiner rejected claims 1, 3, 4, 7, 8, and 11 as follows: (i) claims 1, 3, 4, 7, 8, and 11 under the judicially created doctrine of obviousness-type double patenting over claims 1 and 9 of Application 10/387,739, now claims 1 and 4 of United States Patent 7,014,695 B2 issued

to Koga on Mar. 21, 2006;[1] and (ii) claims 1, 3, and 7 under 35 U.S.C. § 102(e) as anticipated by Momose.

ISSUES

I. Have Appellants demonstrated reversible error in the Examiner's determination that claims 1, 3, 4, 7, 8, and 11 are unpatentable under the judicially created doctrine of obviousness-type double patenting over claims 1 and 9 of Application 10/387,739, now claims 1 and 4 of United States Patent 7,014,695 B2?

II. Have Appellants demonstrated reversible error in the Examiner's determination that claims 1, 3, and 7 are anticipated by Momose?

FINDINGS OF FACT

1. Appellants did not present any arguments in their Appeal Brief contesting the Examiner's obviousness-type double patenting rejection over claims 1 and 9 of Application 10/387,739 (now United States Patent 7,014,695 B2) but did do so in their Reply Brief at page 5.
2. The Examiner indicated that "[c]laims 4-6...would be allowable if rewritten in independent form..." and that "[c]laims 8-11 are

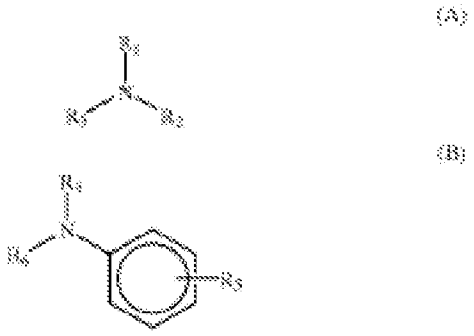
[1] For reasons not known to us, both the Examiner and Appellants seem to believe that Application 10/387,739 was pending at the time of appeal (Examiner's Answer mailed Dec. 14, 2006, hereinafter "Ans." 3; Reply Brief, hereinafter "Reply Br.," 5). As evident from the face of the Koga patent, this is incorrect.

allowed" because "[t]he references alone or in combination fail to teach an ink composition comprising an alkylamine ethylene oxide adduct represented by formula (1) wherein x + y=5 or 15" (Ans. 5).

3. Claim 1 of Application 10/387,739 (now United States Patent 7,014,695 B2 to Koga) describes a water-based ink containing, *inter alia*, a mixture of polyoxyethylene alkylamine (i.e., alkylamine ethylene oxide adducts) surfactants represented by a formula (1) that is substantially the same as (or not shown to be patentably distinct from) Formula (1) of appealed claims 4 and 8 (col. 15, ll. 2-16 of United States Patent 7,014,695 B2).

4. Notwithstanding the statements in the Answer that "[c]laims 4-6...would be allowable if rewritten in independent form..." and that "[c]laims 8-11 are allowed," the Examiner indicated that claims 4, 8, and 11 remain rejected over claims 1 and 9 of Application 10/387,739 based on obviousness-type double patenting (Ans. 3-4).

5. Momose describes an aqueous (i.e., water-based) ink composition comprising at least a surface-modified pigment capable of dispersing and/or dissolving in an aqueous medium without the use of a dispersant (i.e., self-dispersible), an organic amine compound represented by structure (A) or (B) below, and water:



wherein R_1 to R_6 each independently represents a hydrogen atom or an alkyl or hydroxyalkyl chain having from 1 to 8 carbon atoms, which may have a branch, provided that at least one of R_1 to R_3 is an alkyl or hydroxyalkyl chain having from 3 to 8 carbon atoms, which may have a branch (col. 2, ll. 39-65).

6. Appellants' Specification informs one skilled in the relevant art that self-dispersibility of the coloring agent as specified in appealed claim 1 is achieved by providing a functional group such as a carboxylate group (¶0012).

7. Momose teaches that the surface-modified pigment is obtained by bonding a hydrophilic functional group (i.e., a dispersibility-imparting group) selected from the group consisting of a carboxyl group, a carbonyl group, a hydroxyl group, a sulfone group, a phosphoric acid group, and a quaternary ammonium group and/or a salt thereof (col. 3, ll. 50-60).

8. Momose states that the organic amine (A) or (B) is an alkali agent used for adjusting the pH of the aqueous ink composition and also performs the function of elevating the ejection stability (col. 4, ll. 30-34).

9. Momose describes an organic compound having structure (A) where R_1 is *n*- or *t*-butyl and R_2 and R_3 are both $-CH_2CH_2OH$ (Table 1, col. 4, ll. 53-64).

10. Appealed claim 1 specifies a minimum concentration of the surfactant (i.e., dispersant), which may be an alkylamine ethylene oxide adduct (appealed claim 4), in terms of a concentration corresponding to a "first local maximum point" derived from a curve representing surface tension of the ink with respect to a concentration of the surfactant, wherein the curve has one inflection point.

11. Appellants' Specification indicates that the claimed surfactant concentrations, when the surfactant is an alkylamine ethylene oxide adduct, are 0.15% by weight or higher (¶¶0030-0037; Figures 2 and 3).

12. Momose teaches that the aqueous ink composition is preferably used in an amount of 0.01 to 5% by weight, more preferably 0.05 to 2% by weight, and states that if the content is less than 0.01% by weight, no effect on ejection stability is obtained, whereas if it exceeds 5% by weight, the pH may not be adjusted to a desired range (col. 5, ll. 9-15).

13. In Tables 3 and 5, Momose discloses that the amounts of the organic compound (A) may be, for example, "0.8" and "1.0" (Examples A1-A2, cols. 11-12; Examples B1-B2, cols. 13-14).

PRINCIPLES OF LAW

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Nevertheless, it is well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed in the prior art, the burden of proof is shifted to applicant to prove that the prior art product does not inherently or necessarily possess the characteristics attributed to the claimed product. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990); *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

ANALYSIS

I.

We consider first the obviousness-type double patenting rejection of all the appealed claims, namely claims 1, 3, 4, 7, 8, and 11, over claims 1 and 4 of Application 10/387,739 (now United States Patent 7,014,695 B2). While the Examiner stated that appealed claim 4 would be allowable if rewritten in independent form and that appealed claims 8 and 11 are "allowed" (Fact 2), it is evident that the Examiner made these statements in the context of the 35 U.S.C. § 102 rejection over Momose. We make this finding because the reason provided in support of the indication of allowable subject matter or allowance (the lack of a teaching in the reference of an alkylamine ethylene oxide adduct having a structural formula (1)) is inapplicable to the disclosure of claims 1 and 9 of the conflicting application, which is now the Koga patent (Facts 2 and 3). This finding is

supported by the Examiner's obviousness-type double patenting rejection of claims 4, 8, and 11 in the Answer (Fact 4), which Appellants acknowledge (Reply Br. 5).

Turning to the merits, Appellants do not contest the Examiner's determination that the subject matter of the appealed claims would have been obvious over claims 1 and 4 of Application 10/387,739 (now United States Patent 7,014,695 B2 to Koga). Rather, Appellants' sole argument (in a section of the Reply Brief captioned "ARGUMENT") is that "no response to this rejection need be filed at this time since the conflicting claims have not in fact been patented" (Reply Br. 5).

Appellants' argument is without any merit. The conflicting application, as indicated previously, issued as a patent well before the date of this appeal on Mar. 21, 2006. Accordingly, Appellants' assertion that "the conflicting claims have not in fact been patented" is clearly erroneous. Even if we assume that the conflicting claims were not patented, Appellants' argument would have no force. *See In re Wetterau*, 356 F.2d 556, 558 n. 2 (CCPA 1966).

II.

With respect to the 35 U.S.C. § 102 rejection of claims 1, 3, and 7, Appellants argue the claims together (App. Br. 9-13). Accordingly, we confine our discussion to claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

Appellants do not contest the Examiner's finding that Momose describes a water-based ink composition containing a self-dispersible colorant, an organic amine surfactant, and water (Fact 5; Ans. 4-5; App. Br. 9-13). Rather, Appellants contend that Momose does not anticipate because

Momose does not disclose the claimed surfactant concentration and the claimed *anionic* self-dispersing coloring agent (App. Br. 9). According to Appellants, the surface tension-surfactant concentration curve having one inflection point specified in appealed claim 1 is therefore not inherent in Momose's composition (*id.*).

We are not persuaded by Appellants' arguments. Momose teaches the use of a salt of a carboxyl group, which is an anionic group disclosed as useful for the present invention, as the functional group imparting self-dispersibility of the coloring agent (Facts 6 and 7). Accordingly, Appellants' statement that Momose does not teach an anionic self-dispersing coloring agent is not well taken.

We also find Appellants' contention that Momose fails to teach the claimed surfactant concentration to be without merit because Momose's disclosed surfactant concentrations for compounds having structures similar to those described in the Specification significantly overlap or are well above (i.e., within) Appellants' disclosed range of concentrations (Facts 8-13).

Because Momose's ink composition contains the same or substantially the same components in the same concentrations as claimed herein, the burden was properly shifted to Appellants to show that the claimed characteristic would not be inherent in the prior art. Appellants failed to meet that burden. *In re Spada*, 911 F.2d at 708; *In re Best*, 562 F.2d at 1255.

CONCLUSION

On this record, we determine that Appellants have failed to demonstrate any error in the Examiner's determination that: (i) claims 1, 3, 4, 7, 8, and 11 are unpatentable under the judicially created doctrine of obviousness-type double patenting over claims 1 and 4 of United States Patent 7,014,695 B2; and (ii) claims 1, 3, and 7 are anticipated by Momose.

DECISION

The Examiner's decision to reject appealed claims 1, 3, 4, 7, 8, and 11 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tc

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